NARAYANA
IIT-JEE / NEET / FOUNDATIONS

44 YEARS OF EXCELLENCE

Batch Commencement Window : 04th April, 2023

Course Completion Date: 04th April, 2023
Batch End Date: 04th May, 2023
(Inclusive of Tests)

Daily Planner of Crash Couse_Phase-02 (NEET - 2023)

Lecture	DATE	DAY	Physics	Chemistry	Botany	Zoology
Lecture - 1	4-Apr-23	TUESDAY	Physical World	**Some Basic Concepts of Chemistry-I** Laws of chemical combination, Dalton's Atomic theory, atomic and molecular masses, mole concept, Empirical and molecular formula, Equivalent mass, concentration terms stoichiometry and calculation based on stoichiometry	The Living World	Cell: The Unit of Life
Lecture - 2	5-Apr-23	WEDNESDAY	Units and Measurements	Structure of Atom-I: Fundamental particles, Atomic models, Electromagnetic radiations, Max planck's theory, Bohr atomic model, Hydrogen spectrum, Dual behavious of matter, Heisenberg uncertainty principle, Quantum number, Filling of orbitals in atom.	**Biological Classification-I** Kingdom systems of classification, Salient features of Kingdom Monera,Salient features of kingdom Protista and Fungi, classification into major groups; Lichens; Viruses and Viroids,	Cell: The Unit of Life
Lecture - 3	6-Apr-23	THURSDAY	Motion in a Straight Line	Classification of Elements & Periodicity in Properties: Genesis of Periodic classification, Modern Periodic Table, Nomenclature of elements with atomic number > 100, Classification of elements on the basis of electronic configuration, Periodic trends in physical properties: Atomic radii, Ionisation potential, Electron Gain Enthalpy, Electronegativity, Diagonal Relationship, Periodic trends and chemical Reactivity.	**Plant Kingdom-I** Salient features and classification of plants into major groups, Algae–Comparative study of green, brown and red algae; Bryophytes-Salient and distinguishing features and examples, Pteridophytes, Gymnosperms Angiosperms-Salient and distinguishing features and examples, Plant life cycles and alternation of generations.	Cell Cycle & Cell Division
Lecture - 4	7-Apr-23	FRIDAY	Motion in a Plane	Chemical Bonding and Molecular Structure-I: Lewis symbols, Electrovalent bond, Covalent Bond, Dipole moment, Coordinate or dative bond, Formal charge, VSEPR theory and molecular shape	Morphology of Flowering Plants-I: Root, stem, Leaf	Biomolecules-I
Lecture - 5	8-Apr-23	SATURDAY	Laws of Motion	Chemical Bonding and Molecular Structure-II: Valence Bond theory, Hybridisation, Hydrogen bond, Resonance, Molecular orbital theory.	**Morphology of Flowering Plants-II** Inflorescence- cymose and recemose, Flower, fruit and seed, families of angiospermic plants	Biomolecules-II
Lecture - 6	9-Apr-23	SUNDAY	Laws of Motion	States of Matter:Gases and Liquids-I Ideal gas equation, Deviation from ideal behavior. Critical temperature, Viscosity, Surface tension	Anatomy of Flowering Plants	Structural Organisation in Animals-Animal Tissues, Animal Morphology
TEST-01	10-Apr-23	MONDAY	PT-01			
Lecture - 7	11-Apr-23	TUESDAY	Work, Energy & Power	Thermodynamics-I Ist law and 2nd law of thermodynamics, Extensive and intensive property. Different forms of enthalpy of reaction	Transport in Plants	Animal Kingdom
Lecture - 8	12-Apr-23	WEDNESDAY	Work, Energy & Power	Thermodynamics-II Entropy, free energy, spontaneous and non-spontaneous process, third law of thermodynamics	Minerals Nutrition	Animal Kingdom

Lecture - 9	13-Apr-23	THURSDAY	System of Particles and Rotational Motion	Equilibrium-I Chemical Equilibrium: Law of mass action and equilibrium constant, Factors affecting KC, degree of dissociation & numerical	Photosynthesis in Higher Plants-I Site of Photosynthesis, pigments involved, cyclic and non-cyclic photophosphorylation, chemiosmotic hypothesis	Breathing & Exchange of Gases-I Respiratory system in humans; Mechanism of breathing and its regulation in humans-Exchange of gases,
Lecture - 10	14-Apr-23	FRIDAY	System of Particles and Rotational Motion	Equilibrium-II Ionic Equilibrium: pH of weak acids, weak bases, buffer solutions, Hydrolysis of salts and mixture of acids & bases	Photosynthesis in Higher Plants-II: Photorespiration, Comparative account of C3 and C4 pathways, Factors affecting photosynthesis	Breathing & Exchange of Gases-II Transport of gases and regulation of respiration Respiratory volumes; Disorders related to respiration-Asthma, Emphysema, Occupational respiratory disorders.
Lecture - 11	15-Apr-23	SATURDAY	Gravitation	Electrochemistry-I: Ohm's law, Resitivity, Specific conductance, Cell constant, Conductivity of electrolytic solution, Factors for the variations of molar conductance.	Respiration in Plants-I Cellular respiration-Glycolysis and Fermentation (anaerobic), TCA cycle and ETS (aerobic), Energy relations, Amphibolic pathways, Respiration quotient	Body Fluids & Circulation-I Human circulatory system-Structure of human heart and blood vessels; Cardiac cycle, cardiac output, ECG
Lecture - 12	16-Apr-23	SUNDAY	Mechanical Properties of Solids	Electrochemistry-II:Kohlrausch law, Electrode Potential and EMF of a cell, Electrolysis, Commercial cells.	Plant Growth and Development Phases of plant growth and growth rate, sequence of developmental process in a plant cell, Comparitive study of growth regulators, Seed germination and dormancy, photoperiodism, vernalisation	Body Fluids & Circulation-II Double circulation; Regulation of cardiac activity; Disorders of circulatory system-Hypertension, Coronary artery disease, Angina pectoris, Heart failure.
TEST-02	17-Apr-23	MONDAY	PT-02			
Lecture - 13	17-Apr-23	MONDAY	Mechanical Properties of Fluids	The Solid State-I: Classification of solids, Space lattice, Types of cubic unit cell, Packing in metallic crystals, Density of crystalline solid, Relation between d, a and r, Radius ratio, Structure of Ionic solids, Imperfections in solids, Electrical properties of solids, Magnetic properties of solids.	Reproduction in Organisms: Life span, Types of reproduction, Asexual reproduction, Sexual reproduction - Features, Phases of life cycle, Events i.e. Pre-fertilisation, Fertilization and Post-fertilization.	Excretory Products and their Elimination
Lecture - 14	18-Apr-23	TUESDAY	Thermal Properties of Matter	Solutions-I: Types of solutions, Concentration of solution, Henry's law, Vapour pressure, Raoult's law for volatile solutes, Vapour pressure of solutions of solids in liquids, Ideal solutions, Non-Ideal solutions, Azeotropic mixture, Colligative properties, Abnormal molecular mass, Van't hoff factor.	Sexual Reproduction in Flowering Plants	Locomotion & Movement-I Types of movement- ciliary, flagellar, muscular; Skeletal muscle- contractile proteins and muscle contraction
Lecture - 15	19-Apr-23	WEDNESDAY	Thermodynamics	Chemical Kinetics-I: Rate of chemical reaction, Law of mass action, Molecularity of the reaction, Order of reaction, Zero order reaction, First order reaction. Method to determine the order of reaction, Rate constant, Factors affecting rate of a chemical reaction. Collision theory of reaction rates, Activation energy.	Principles of inheritance & Variations-I: Mendelian inheritance: One gene & two genes interaction, Incomplete dominance, Co-dominance, Multiple alleles and Inheritance of blood groups, Pleiotropy; Polygenic inheritance, Chromosomal theory of inheritance	Locomotion & Movement-II Skeletal system and its functions; Joints; Disorders of muscular and skeletal system-Myasthenia gravis, Tetany, Muscular dystrophy, Arthritis, Osteoporosis, Gout.
Lecture - 16	20-Apr-23	THURSDAY	Kinetic Theory	Surface Chemistry-I: Adsorption, Adsorption of gases on solid, Effect of temperature, Effect of pressure, Colloidal solution, Types of colloidal system, Preparation of colloid solution, Properties of colloidal solution, Catalysis.	Principles of inheritane & Variations-II Linkage and crossing over, Sex determination, sex-linked inheritance, Mutation, Genetic disorders- Pedigree analysis, Mendelian disorder and chromosomal disorders	Neural Control & Coordination-I Neuron and nerves; Nervous system in humans (central nervous system), Peripheral nervous system and visceral nervous system; Generation and conduction of nerve impulse; Reflex action, Sense organs; Elementary structure and function of eye and ear
Lecture - 17	21-Apr-23	FRIDAY	Oscillations	Organic Chemistry - Some Basic Principles and Techniques-I: Classification of organic compounds, Nomenclature system, Isomerism, Reaction intermediates, General concept of organic reactions , Mechanism of organic reactions	Molecular Basis of Inheritance-I Search for genetic material and DNA as genetic material, structure of DNA and RNA, DNA packaging, DNA replication, Central Dogma of Molecular Biology, Transcription and genetic code, tRNA - The adapter molecule	Chemical Coordination and Integration-I Endocrine glands and hormones; Human endocrine system Hypothalamus, Pituitary, Pineal, Thyroid, Parathyroid, Adrenal, Pancreas, Gonads; Mechanism of hormone action (Elementary Idea); Role of hormones as messengers and regulators, Hypo-and hyperactivity and related disorders (Common disorders e.g. Dwarfism, Acromegaly, Cretinism, goiter, exopthalmic goiter, diabetes, Addison's disease)
HOLIDAY	22-Apr-23	SATURDAY				
Lecture - 18	23-Apr-23	SUNDAY	Waves	Organic Chemistry - Some Basic Principles and Techniques-II: Purification of organic compounds, Qualitative analysis, Quantitative analysis.	Molecular Basis of Inheritance-II Translation, Gene expression and regulation, Human genome project, DNA fingerprinting	Reproduction in Organisms
TEST-03	24-Apr-23	MONDAY	PT-03			
Lecture - 19	25-Apr-23	TUESDAY	Electric Charges and Fields	Hydrocarbons-I: Conformations of alkanes, Geometrical isomerism, Alkanes : Preparation, Chemical properties, Alkenes: Preparation, Chemical properties, Alkynes : Preparation, Chemical properties, Reaction of aromatic hydrocarbons.	Principles and process of Biotechnology-I: Biotechnology - Principles, Tools of recombinant DNA technology, Restriction enzymes, Ligases, Polymerases, Cloning vectors, Essential features and details of pBR322 , Blue white selection (Insertional inactivation), Process of Recombinant DNA technologies, Isolation of DNA, Fragmentation of DNA, Electrophoresis, PCR, Ligation of DNA fragment into a vector, Insertion of Recombinant DNA into the host cell, Competent cells, Methods of transformation, Culturing the host cells in a nutrient medium, Bioreactors & their types, Types of fermentation, Downstream processing	Human Reproduction-I Male and female reproductive systems; Microscopic anatomy of testis and ovary
Lecture - 20	26-Apr-23	WEDNESDAY	Electrostatic Potential and Capacitance	Haloalkanes and Haloarenes-I: Introduction, Classification, IUPAC Nomenclature, Methods of preparation of Haloalkanes, Physical properties, Chemical properties, Sterochemical aspects of nucleophilic substitution reactions, Polyhalogen compounds	Application of Biotechnology-I: Biotechnological applications in agriculture– Green revolution, Golden rice, Bt cotton, Pest resistant plants, RNAi, Biotechnological applications in medicine–Genetically engineered insulin, Gene Therapy, Molecular Diagnosis - PCR, ELISA, autoradiography, Transgenic Animals, Ethical Issues, Biopiracy	Human Reproduction-II Gametogenesis-spermatogenesis & oogenesis; Menstrual cycle,Fertilisation, embryo development upto blastocyst formation, Implantation; Pregnancy and placenta formation (Elementary idea); Parturition (Elementary idea); Lactation (Elementary idea)

Lecture - 21	27-Apr-23	THURSDAY	**Current Electricity**	**Alcohols, Phenols and Ethers-I: Introduction, Alcohols and phenols, Nomenclature of Alcohols and phenols preparation of alcohols, reactions of alcohols,Preparation of phenols, Reactions of phenols, Some commercially important alcohols, Ethers, preparation of ethers, reactions of ethers**	**Strategies for Enhancement in Food Production**: Introduction, Plant breeding, Main steps, Green revolution, Plant breeding for disease resistance, Plant breeding for resistance to insect pests, Improved food quality, Breeding for anti-nutritional factor, Single cell protein, Tissue culture. Plant breeding for resistance to insect pests, Improved food quality, Breeding for anti-nutritional factor, Single cell protein, Tissue culture.	**Reproductive Health-I** **Need for reproductive health and prevention of sexually transmitted diseases (STD); Birth control-Need and Methods. Contraception and Medical Termination of Pregnancy (MTP); Amniocentesis; Infertility and assisted reproductive technologies – IVF, ZIFT, GIFT**
Lecture - 22	28-Apr-23	FRIDAY	Moving Charges and Magnetism	**Aldehydes, Ketones & Carboxylic Acids, Amines**	**Microbes in Human Welfare-I** **Microbes in household food processing and industrial production, sewage treatment plant, biogas plant, Biocontrol agents and biofertilizers.**	**Evolution-I: Origin of life–Big bang theory,Theories of origin of life, Evolution of life forms, Evidences of Evolution-I: Palaentological, Anatomical, Embryological, Biogeographical, Adaptive radiation**
Lecture - 23	29-Apr-23	SATURDAY	**Magnetism & Matter,Electromagnetic Induction**	**Biomolecules , Polymers, Chemistry in Everyday Life**	**Organisms and Population-I: Introduction, Levels of organisation, Major biomes, Abiotic factors, Temperature, Abiotic Factors–Light, Water, Soil, Response to abiotic factors.**	**Evolution-II** **Biological evolution, Lamarckism , Darwinism, Hugo de Vries: Mutation theory, Hardy Wienberg principle, Modern synthetic theory, Types of Natural selection, Genetic Drift, Gene Flow, Gene migration, Founder effect, Speciation–Types of speciation, Brief account of evolution, Human evolution–Origin & evolution of man**
Lecture - 24	30-Apr-23	SUNDAY	**Alternating Current, Electromagnetic Waves**	**Hydrogen** **The s-block elements**	**Organisms and Population-II: Adaptations, Population characteristics and growth Population interactions.**	**Human health & Disease-I** **Health–Various types of diseases in Human–Bacterial, Viral, Protozoan, Helminthic & Fungal diseases, Types of Immunity–Innate, acquired, Humoral mediated Immunity, Types of Immunity-Cell Mediated Immunity, Active & passive immunity, Vaccination and immunization, Allergies, Auto immunity, Immune system of the body, Lymphoid organs, AIDS–Cause, Prevention**
Lecture - 25	1-May-23	MONDAY	**Ray Optics and Optical Instruments, Wave Optics**	**The p-block elements**	**Ecosystem I :** Types of ecosystems, Ecosystem - components, Ecosystem - Structure , Ecosystem - Functions- Productivity, Decomposition, Energy Flow	**Human health & Disease-II** **Cancer–Causes, detection & diagnosis,Treatment drugs and Alcohol Abuse–Opioids, Cannabinoids, Sedatives, Hallucinogens, Stimulants, Adolescence & drug/alcohol abuse, Addiction & dependence, Effects of drug and alcohol abuse, Prevention & control**
Lecture - 26	2-May-23	TUESDAY	**Dual Nature of Radiation and Matter**	**General Principles and Process of Isolation of Elements** **The d & f-block Elements**	**Ecosystem II :** Food chain, Food web, Ten percent law of energy transfer, Ecological pyramids, Ecological succession and Nutrient cycle	**Strategies for Enhancement in Food Production:** Animal Husbandry
Lecture - 27	3-May-23	WEDNESDAY	**Atoms, Nuclei, Semiconductor**	**Coordination Compounds** **Environmental Chemistry**	**The Environmental Issues**	**Biodiversity and Conservation**
TEST-04	4-May-23	THURSDAY	**PT-04**			
GT-01	5-May-23	FRIDAY	**GRAND TEST-01**			
GT-02	6-May-23	SATURDAY	**GRAND TEST-02**			